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DEC 19 2013

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Serial No. 13-656
MPS Lic/LES R0
Docket No. 50-336
License No. DPR-65

DOMINION NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNIT 2
LICENSEE EVENT REPORT 2013-004-00
REACTOR TRIP WHILE BACKWASHING D WATERBOX

This letter forwards Licensee Event Report (LER) 2013-004-00 documenting an event that occurred at Millstone Power Station Unit 2 on November 9, 2013. This LER is being submitted pursuant to 10 CFR 50.73(a)(2)(IV)(A).

If you have any questions or require additional information, please contact Mr. William D. Bartron at (860) 444-4301.

Sincerely,

Stephen E. Scace
Site Vice President – Millstone

Attachments: 1

Commitments made in this letter: None

IE22
NRR

cc: U.S. Nuclear Regulatory Commission
Region I
2100 Renaissance Blvd, Suite 100
King of Prussia, PA 19406-2713

J. S. Kim
Project Manager - Millstone Power Station
U.S. Nuclear Regulatory Commission
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NRC Senior Resident Inspector
Millstone Power Station

ATTACHMENT

LICENSEE EVENT REPORT 2013-004-00

MILLSTONE POWER STATION UNIT 2
DOMINION NUCLEAR CONNECTICUT, INC.

NRC FORM 366 (10/2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2016

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Millstone Power Station - Unit 2	05000336	1 OF 3

4. TITLE

Reactor Trip While Backwashing D Waterbox

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
11	09	2013	2013	– 004	– 00	12	19	2013	FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE

1

10. POWER LEVEL

095

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☒ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
William D. Bartron, Supervisor Nuclear Station Licensing	860-444-4301

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
	SG	Relay	Agastat	N						

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES (*If yes, complete 15. EXPECTED SUBMISSION DATE*) ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On November 9, 2013, at 1514, Millstone Power Station Unit 2 (MPS2) experienced a turbine trip and an automatic reactor trip from 95% power MODE 1 due to loss of condenser vacuum. The Unit was in the process of condenser backwashing operations when condenser vacuum was lost due to unexpected pump ramp-down of the 'C' circulating water pump (CWP) when the 'D' CWP was secured as required by procedure.

All control rods inserted on the reactor trip. An auxiliary feedwater (AFW) automatic start occurred post trip, as expected per design, and all other safety systems functioned as required.

The direct cause of the event was the MPS2 'C' CWP ramped off due to failure of contacts on a time-delay relay to deenergize as designed.

The defective relay was replaced. Additional corrective actions are being taken in accordance with the station's corrective action program.

This event is being reported per 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in a manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B). Actuations of the reactor protection system and the AFW system are reportable under this paragraph.

1. EVENT DESCRIPTION

On November 9, 2013, at 1514, Millstone Power Station Unit 2 (MPS2) experienced a turbine trip and an automatic reactor trip from 95% power MODE 1 due to loss of condenser vacuum.

The Unit was in the process of condenser backwashing operations in accordance with plant procedures. The loss of condenser vacuum was due to unexpected pump ramp-down of the 'C' circulating water pump (CWP) when the 'D' CWP was secured as required by procedure. This resulted in both CWPs being secured in the 'B' condenser. This caused the condenser vacuum to drop resulting in a turbine trip which immediately caused the reactor trip breakers to open. All the control rods inserted into the reactor core. Reactor coolant (RCS) and main steam systems responded as expected. There were no indications of safety valve actuation. Steam generator (SG) pressures were maintained below 920 psia. RCS temperature response was as expected post trip and returned to its nominal no-load Tcold of 532 degrees F. An auxiliary feedwater (AFW) automatic start occurred post trip, as expected and SG water level was recovered. All safety systems functioned as required.

This event is being reported per 10 CFR 50.73(a)(2)(iv)(A) as an event that resulted in a manual or automatic actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B). Actuations of the reactor protection system and the AFW system are reportable under this paragraph.

2. CAUSE

Post trip troubleshooting revealed that the direct cause of the event was the MPS2 'C' CWP ramped off due to failure of contacts on a time-delay relay to deenergize as designed. This relay is a pump permissive relay designed to de-energize when the 'D' CWP is fully secured.

3. ASSESSMENT OF SAFETY CONSEQUENCES

The operating crew responded to the reactor trip by completing EOP 2525, Standard Post Trip Actions, and entering EOP 2526 Reactor Trip Recovery. The AFW system started in response to low steam generator level as designed.

All control rods inserted on the reactor trip. With the 'A' and 'B' CWPs still running, condenser vacuum remained adequate for operation of the condenser dump valves following the reactor trip. Both main and auxiliary feedwater provided makeup to the SGs.

Based on the above discussion, there were no safety consequences for the event.

4. CORRECTIVE ACTION

The defective relay was replaced. Additional corrective actions are being taken in accordance with the station's corrective action program.

5. PREVIOUS OCCURRENCES

Similar events are documented in the following LERs:

- MPS2 LER 2010-003-00, Reactor Trip on Low Condenser Vacuum.

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NARRATIVE

6. **Energy Industry Identification System (EIIS) codes are**

- Circulating Water System - SG
- Circulating Water Pump –SG, P
- Main Condenser – COND
- Reactor Protection System – JC
- Reactor Trip Breakers –JC, BKR
- Reactor Coolant System – AB
- Main Steam System – SB
- Auxiliary Feedwater System – BA